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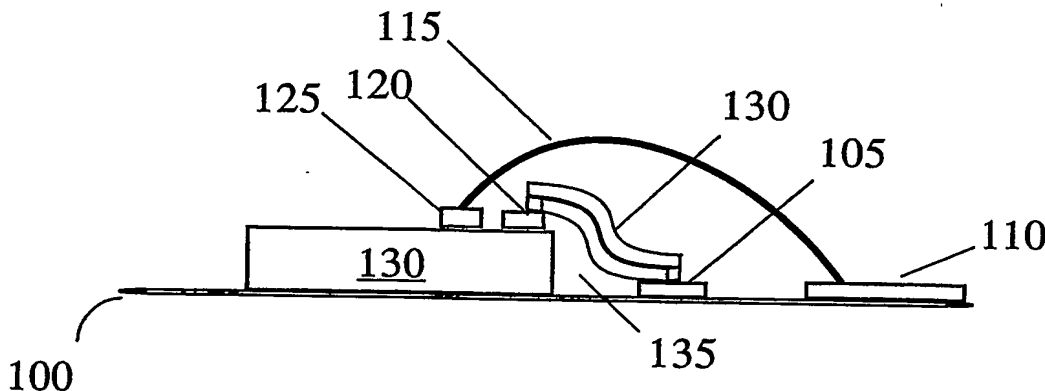
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— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

[Continued on next page]

(54) Title: HIGH DENSITY PACKAGE INTERCONNECT POWER AND GROUND STRAP AND METHOD THEREFOR



(57) Abstract: One aspect of the present invention relates to reducing the impedance of the paths connecting the power or ground of a device and a BGA package. In a particular example implementation, impedance of the signal bond wires is controlled by placing a ground strap (130) at a predetermined distance from the signal bond wires (115). In a related example embodiment, a low impedance power or ground connection is made between a device die (140) and package in close proximity to wire bonds (115). An integrated circuit (140) includes a plurality of grounding pads, signal pads, power pads and a package for mounting the integrated circuit. The package (100) comprises a plurality of pad landings (110), a grounding ring (105) surrounding the integrated circuit (140); and a grounding strap (130) coupling the grounding ring (105) to the grounding pads (120) of the integrated circuit.

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A. CLASSIFICATION OF SUBJECT MATTER
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	column 2, line 64 -column 4, line 50; figures 1-3	1-17
Y	---	
Y	US 6 424 032 B1 (HOSOYAMADA SUMIKAZU ET AL) 23 July 2002 (2002-07-23)	1-17
A	column 3, line 66 -column 5, line 67; figures 3-6	18
A	---	
A	US 6 083 772 A (CHEN SHIAW-JONG STEVE ET AL) 4 July 2000 (2000-07-04) cited in the application column 4, line 50 -column 6, line 21; figures 1,2	1-18

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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